

The logo for Purple Mash, featuring the word "purple" in a purple font and "mash" in a white font, both on a black background that resembles a sticky note with a torn corner.

**purple
mash**

Computing Scheme of Work Overview Year 3

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Introduction

This document contains an overview of the units included in the Purple Mash Computing Scheme of Work for Year 3.

For detailed lesson plans and other information, see the documents for the individual units themselves.

Most lessons assume that children are logged onto Purple Mash with their own individual usernames and passwords, so their work will be saved in their own folders automatically and can be easily reviewed and assessed by the class teacher. If children have not used and logged onto Purple Mash before then they will need to spend some time before starting these lessons, learning how to do this. Children can be supported by having their printed logon cards (produced using [Create and Manage Users](#)) to hand.

Lesson plans also make use of the facility within Purple Mash to set activities for pupils which they can then complete and hand-in online (2Dos). This enables you to assess their work easily as well as distribute resources to all pupils. If children have not opened 2Dos before then they will need more detailed instructions about how to do this. A teacher's guide to 2Dos can be found in the teacher's section: [2Dos Guide](#).

If you are currently using a single login per class or group and would like to set up individual logins yourself, then please see our guide to doing so at [Create and Mange Users](#). Alternatively, please contact support at support@2simple.com or 0208 203 1781.

To force links within this document to open in a new tab, right-click on the link then select 'Open link in new tab'.

Linking the lessons to curriculum objectives

At the end of this document you will find a breakdown showing how the units relate to the curricula of England, Wales, Northern Ireland and Scotland. Within each unit document is a section called Assessment Guidance with exemplars of how a child at emerging, expected and exceeding level of achievement could demonstrate this in their work through the unit. These statements could also be used for reporting.



Data

This information can be used in association with the Purple Mash Data Dashboard to make and record judgements about children's outcomes and demonstrate progress over time.

For more information about the Data Dashboard see the [Data Dashboard manual](#) or view the videos within the Data Dashboard tool.

Differentiation

Where appropriate, guidance has been given on how to simplify tasks within lessons or challenge those who are ready for more stretching tasks.

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Adapting and Refining the Scheme for your School

In an ideal world, pupils would be able to complete all units; this provides a wide range of different technological experiences using a variety of tools. The overlaps between units serve to deepen understanding of computational concepts and provide opportunities for pupils to apply and extend understanding and make links in their knowledge and capabilities.

However, as a school, you might decide that you need to refine the scheme for your own purposes and needs, meaning that not all units can be covered. This section Title to help you to do this whilst still being confident in curriculum coverage.

Firstly, use the colour coding to pick and choose units that cover the three strands of computing content to ensure a spread of complimentary opportunities and skills and to ensure curriculum coverage. Ideally, balance these strands over the whole school so that pupils cover and revisit all areas.

Secondly, look for opportunities to incorporate the computational skills into other subjects. Resources could be adapted or created to match your topics. Here are some suggestions:

Units that link to the maths curriculum:

- 3.6 Branching Databases
- 3.8 Graphing
- 3.3 Spreadsheets

Units that could be part of English lessons:

- 3.7: Simulations

Units that could easily be topic linked; resources will need to be adapted to have a topic theme: Any of the data handling units suggested in the maths section.

- 3.9 Presenting

For lessons taught more discretely as computing such as Email (3.5) and Blogging (6.4), topic themes could still be used to double-up on objectives covered.

Online safety units can be part of RSE\PSHE lessons; there is a strong link between the learning objectives related to online safety with many of the online safety lessons aligning with RSE\PSHE objectives.

Typing could be covered during a regular 10-minute morning session over a term rather than during dedicated computing lessons (unit 3.4).

We have a stand-alone spreadsheet unit for Y6, this does not rely upon having completed the other spreadsheet units so might be another way to familiarise pupils with spreadsheets without including a spreadsheet unit in each year groups. In this case, we would advise including the use of spreadsheets and other data programs within maths where there is a curricular link.

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Crash Courses

There are crash course units for Spreadsheets using 2Calculate and Coding using 2Code. Use these units instead of the standard Spreadsheets and Coding units if the children have not completed the prior year's spreadsheets or coding units. The crash courses are designed to enable children to catch up with the main features of the units from previous years and progress onto the standard units in the next year.

For example, if you are a school that starts in year 3 with children joining from different settings who have not used the Purple Mash Computing Scheme, you would start with the crash courses in year 3 for Coding and Spreadsheets and then children will be ready for the standard units for coding and spreadsheets in year 4.

Use these units if your school has just started using the scheme so children have not completed the prior year units.

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Year 3 Whole Year Overview

Predominant Area of Computing*		
	Computer Science	
	Information Technology	
	Digital Literacy	

*Most units will include aspects of all strands.

These units can be taught in any order to meet the needs of your wider curriculum.

<p style="text-align: center;">Unit 3.1 Coding</p> <p>Number of lessons - 6</p> <p>Main Programs - 2Code</p>	<p style="text-align: center;">Unit 3.2 Online safety</p> <p>Number of lessons - 3</p> <p>Programs - Various</p>	<p style="text-align: center;">Unit 3.3 Spreadsheets</p> <p>Number of lessons - 3*</p> <p>Programs - 2Calculate</p>
<p style="text-align: center;">Unit 3.4 Touch Typing</p> <p>Number of lessons - 4</p> <p>Programs - 2Type</p>	<p style="text-align: center;">Unit 3.5 Email (including email safety)</p> <p>Number of lessons - 6</p> <p>Programs - 2Email, 2Connect, 2DIY</p>	<p style="text-align: center;">Unit 3.6 Branching Databases</p> <p>Number of lessons - 4</p> <p>Programs - 2Question</p>
<p style="text-align: center;">Unit 3.7 Simulations</p> <p>Number of lessons - 3</p> <p>Programs - 2Simulate, 2Publish</p>	<p style="text-align: center;">Unit 3.8 Graphing</p> <p>Number of lessons - 3</p> <p>Programs - 2Graph</p>	<p style="text-align: center;">Unit 3.9 Presenting (with Microsoft PowerPoint or Google Slides)</p> <p>Number of Lessons - 5 or 6 (version dependent) Main Program - MS PowerPoint or Google Slides</p>

*The crash course unit has 4 lessons.

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Year 3 Unit Overview

Autumn 1

Unit 3.1 – Coding

Lesson	Title	Success Criteria
1	Using Flowcharts	<ul style="list-style-type: none"> Children can read and explain a flowchart Children can use a flowchart to create a computer program. Children can create a computer program that uses click events and timers.
2	Using Timers	<ul style="list-style-type: none"> Children can create a program that uses a timer-after command Children can create a program that uses a timer-every command Children understand there can be different ways to solve a problem.
3	Using Repeat	<ul style="list-style-type: none"> Children understand how the turtle object moves. Children can use the repeat command with an object. Children can create a computer program that includes use of the repeat command.
4	Code, Test and Debug	<ul style="list-style-type: none"> Children can create computer programs using prior knowledge. Children can run, test and debug their programs. Children can consider nesting when debugging their programs.
5 & 6	Design and Make an Interactive Scene	<ul style="list-style-type: none"> Children can use the properties table to set the properties of objects. Children can plan their scene and code before they create their program. Children can confidently make several different things happen in a program.

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Autumn 2

Unit 3.2 – Online Safety

Lesson	Title	Success Criteria
1	Safety in Numbers	<ul style="list-style-type: none"> • Children understand what makes a good password for use on the Internet. Children are beginning to realise the outcomes of not keeping passwords safe. • Children can contribute to a concept map of all the different ways they know that the Internet can help us to communicate. • Children have contributed to a class blog with clear and appropriate messages. • Extension: Children understand that passwords help to limit who can see personal / private / confidential information.
2	Fact or Fiction?	<ul style="list-style-type: none"> • Children understand that some information held on websites may not be accurate or true. • Children are beginning to understand how to search the Internet and how to think critically about the results that are returned. • Children have accessed and assessed a 'spoof' website. • Children have created their own 'spoof' webpage mock-up. • Children have shared their 'spoof' web page on a class display board. • Extension: Children evaluate facts from a website and explain how they fact checked the information that was presented.
3	Appropriate Content & Ratings	<ul style="list-style-type: none"> • Children can identify some physical and emotional effects of playing/watching inappropriate content/games. • Children relate cyberbullying to bullying in the real-world and have strategies for dealing with online bullying including screenshot and reporting.

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Unit 3.3 – Spreadsheets

Lesson	Title	Success Criteria
1	Creating Pie Charts and Bar Graphs	<ul style="list-style-type: none"> • Children can create a table of data on a spreadsheet. • Children can use a spreadsheet program to automatically create charts and graphs from data.
2	Using more than and Spin Button Tools	<ul style="list-style-type: none"> • Children can use the 'more than', 'less than' and 'equals' tools to compare different numbers and help to work out solutions to calculations. • Children can use the 'spin' tool to count through times tables.
3	Advanced Mode and Cell Addresses	<ul style="list-style-type: none"> • Children can describe a cell location in a spreadsheet using the notation of a letter for the column followed by a number for the row. • Children can find specified locations in a spreadsheet.

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Spring 1

Unit 3.5 – Email

Lesson	Title	Success Criteria
1	Communication	<ul style="list-style-type: none"> Children can list a range of different ways to communicate. Children can use 2Connect to highlight the strengths and weaknesses of each method. Extension: Children can order the various types of communication that have been used through history.
2	Composing Emails	<ul style="list-style-type: none"> Children can open an email and respond to it. Children have sent emails to other children in the class. Extension: Children can use the search option in the address book to find a classmate when sending an email.
3	Using Email Safely: Part 1	<ul style="list-style-type: none"> Children have written rules about how to stay safe using email. Children have contributed to classmates' rules. Extension: Children understand the importance of draft.
4	Using Email Safely: Part 2	<ul style="list-style-type: none"> Children have created a quiz about email safety which explores scenarios that they could come across in the future. Extension: Children create title screens for their quizzes explaining what the quiz is about, and how to play it.
5	Attachments	<ul style="list-style-type: none"> Children can attach work to an email. Children know what CC means and how to use it.
6	Email Simulations	<ul style="list-style-type: none"> Children can read and respond to a series of email communications. Children can attach files appropriately and use email communication to explore ideas. Extension: Children know why the terms CC and BCC are used Children understand when to use CC or BCC

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Spring 2

Unit 3.4 – Touch-typing

Lesson	Title	Success Criteria
1	Home, Top and Bottom Row Keys	<ul style="list-style-type: none"> Children understand the names of the fingers. Children understand what is meant by the home, bottom, and top rows. Children have developed the ability to touch type the home, bottom, and top rows.
2	Home, Top and Bottom Row Keys (Consolidation)	<ul style="list-style-type: none"> Children can use two hands to type the letters on the keyboard.
3	Left Keys	<ul style="list-style-type: none"> Children can touch type using the left hand.
4	Right Keys	<ul style="list-style-type: none"> Children can touch type using the right hand.

Unit 3.6 – Branching Databases

Lesson	Title	Success Criteria
1	Introducing Databases	<ul style="list-style-type: none"> Children understand how YES/NO questions are structured and answered. Children have used YES/NO questioning to play a simple game with a friend. Children can explain why they choose a particular question to split their database. Extension: Children can begin to use 'or more' and 'or less' in their questioning
2	Branching Databases	<ul style="list-style-type: none"> Children have contributed to a class branching database about fruit. Children have completed a branching database about vegetables. Extension: Children can edit and adapt a branching database to accommodate new entries.

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3 and 4	Creating a branching database on the computer	<ul style="list-style-type: none"> • Children can choose a suitable topic for a branching database. • Children can select and save appropriate images. • Children can create a branching database. • Children know how to use and debug their own and others branching databases.
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Summer 1

Unit 3.7 – Simulations

Lesson	Title	Success Criteria
1	What Are Simulations?	<ul style="list-style-type: none"> • Children know that a computer simulation can represent real and imaginary situations. • Children can give some examples of simulations used for fun and for work. • Children can give suggestions of advantages and problems of simulations.
2	Exploring a Simulation	<ul style="list-style-type: none"> • Children can explore a simulation. • Children can use a simulation to try out different options and to test predictions.

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		<ul style="list-style-type: none"> • Children can begin to evaluate simulations by comparing them with real situations and considering their usefulness. • Children can analyse choices made using a branching database.
3	Analysing and Evaluating a Simulation	<ul style="list-style-type: none"> • Children can recognise patterns within simulations and make and test predictions. • Children can identify the relationships and rules on which the simulations are based. • Children can evaluate a simulation to determine its usefulness for purpose. • Children can create their own simple simulation (extension).

Unit 3.8 – Graphing

Lesson	Title	Success Criteria
1	Introducing 2Graph	<ul style="list-style-type: none"> • Children can set up a graph with a given number of fields. • Children can enter data for a graph. • Children can produce and share graphs made on the computer. • Extension: Children can select most appropriate style of graph for their data and explain their reasoning.
2	Using 2Graph to Solve an Investigation	<ul style="list-style-type: none"> • Children have solved a maths investigation. • Children can present the results in a range of graphical formats. • Children can use the sorting option to make analysis of their data easier. • Extension: Children can select most appropriate style of graph for their data and explain their reasoning.

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Summer 2

Unit 3.9 – Presenting (with Microsoft PowerPoint)

Downloaded Version of MS PowerPoint

Lesson	Title	Success Criteria
1	Making a Presentation from a Blank Page	<ul style="list-style-type: none"> • Children know what PowerPoint is. • Children can open PowerPoint. • Children can add text to a page and format it. • Children can add shapes to a page.
2	Adding Media	<ul style="list-style-type: none"> • Children can change the design of the slides. • Children can insert a new slide. • Children can insert pictures. • Children can edit pictures. • Children can insert video and audio.
3	Adding Animation	<ul style="list-style-type: none"> • Children can use animations in a presentation. • Children can use transitions in a presentation.
4	Presenting with Timings	<ul style="list-style-type: none"> • Children can add timings to a presentation. • Children can present effectively using PowerPoint.
5 & 6	Create a Presentation	<ul style="list-style-type: none"> • Children can create a presentation including formatted text. • Children can include different media. • Children can add transitions and animations. • Children can add timings to the presentation. • Children can present effectively.

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English National Curriculum Objectives (Key Stage 2)

National Curriculum Objective	Strand	Units
Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	Computer Science	3.1
Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	Computer Science	3.1
Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Computer Science	3.1
Understand computer networks, including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration.	Computer Science	3.5
Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	Information Technology	
Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Information Technology	3.3 3.4 3.5 3.6 3.7 3.8 3.9
Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Digital Literacy	3.2 3.5 3.9

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